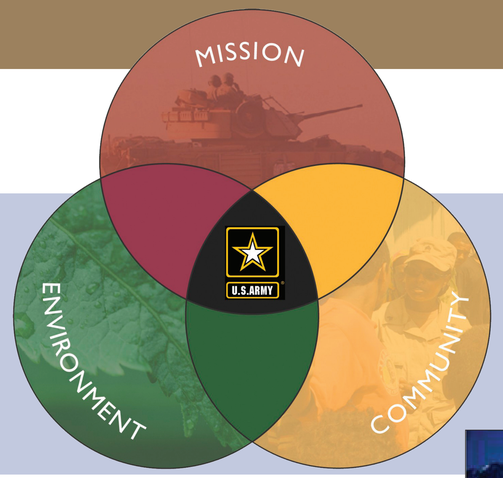
SEMS Goal #1

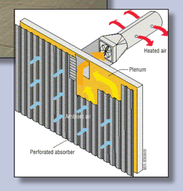
Sustain all facility and mobility systems from renewable sources, and reduce the total water purchased from outside sources by 75%



Evans Army Community Hospital/Passive Solar Application

Central Vehicle Wash Facility

(above) Existing solar wall on the Fort Carson aircraft hangar.



(right) Diagram of solar wall technology.

Wind farm in California

Accomplishments:

- Signed a five-year contract to purchase 40,000 MWH/year worth of Renewable Energy Certificates (REC) accounting for 28% of Fort Carson's electrical use through the Western Area Power Administration (WAPA). RECs are from wind and biomass power generated in California and Nebraska.
- Water restriction policy along with the use of rain sensors and improving water utility systems have reduced water usage 45% from the year 2000 baseline.
- New E85 compatible fuel point constructed. Facility operation will eventually transition to E85. In addition, a pilot program has seven government vehicles running on biodiesel.

One of the rain sensors Fort Carson installed.

Hybrid electic vehicles are one type of alternative fuel vehicles (AFVs) that are part of Fort Carson's administrative fleet.

Future Initiatives:

- Install a transpired solar collector wall on Bldg. 8030 (large motorpool) to preheat intake air and reduce natural gas consumption for heating.
- Complete energy and water reduction capital investment projects at the main industrial facility.
- Partner with interested parties to determine the potential for wind farms or photo-voltaics on Fort Carson and Piñon Canyon Maneuver Site (PCMS) properties.

Questions:

How does Fort Carson integrate its efforts with the community to expand renewable energy use when conventional fossil fuel use is the norm?

What proven technologies should be integrated into Fort Carson renovation and construction projects to improve energy efficiency?

For more information, call the SEMS Training/Sustainability Hotline at 526-4340 or log on to http://sems.carson.army.mil